

## ABSTRACT OF THE DISCLOSURE

For reproducing information recorded on an optical disc, a pickup is used to detect a target track on the disc through an optical beam. In carriage servo control, movement of the pickup is servo-controlled in the radial direction of the optical disc. In this control, a tracking error signal is produced by a preamplifier. A pulse signal is produced, in which the period of the pulse signal is set to a constant amount corresponding to the accuracy of movement of the pickup. The duty ratio of the pulse signal is changed based on characteristic of the error signal, so that a changed pulse signal is produced. The changed pulse signal is multiplied by the tracking error signal, so that a carriage control signal is produced. The carriage control signal is supplied to a carriage motor by a driver, so that the pickup is moved.